The present study is based on data of the units of the brick industry situated at Uttarpara Industrial belt for the period from 1970-71 to 1979-80. This period bears no special implication from the industry's point of view. It was just the preceding decade when the study started. Immediacy impelled us to select this particular period. The study covers all the 56 brick fields located in the area.

A study of the structure and development of this industry shows how the entrepreneurship has played a vital role in accelerating or retarding its progress. The study of the units reveals that 76.8% of the total units are in the form of Sole-proprietorship, 19.6% of Partnership and 3.6% of Private Ltd. Co. It is interesting to note that Public Limited Company and Public Sector units have been found to be absent in this area. Though big corporate bodies were associated with it during earlier decades. Similar is the situation with regard to Co-operative organisations. The position in detail is shown in the table below:

Form of Ownership of Brick Units

Table - 3.1

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Management</th>
<th>No. of units</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sole-Proprietorship</td>
<td>43</td>
<td>76.80</td>
</tr>
<tr>
<td>2.</td>
<td>Partnership</td>
<td>11</td>
<td>19.60</td>
</tr>
<tr>
<td>3.</td>
<td>Private Limited</td>
<td>02</td>
<td>03.60</td>
</tr>
<tr>
<td>4.</td>
<td>Public Limited</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>Co-operative</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>56</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
For visual understanding the table is converted into a pie-chart and is shown below:

**Figure - 3.1**

<table>
<thead>
<tr>
<th>19.6% Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6% Private Limited</td>
</tr>
<tr>
<td>76.8% Sole Proprietorship</td>
</tr>
</tbody>
</table>

From this exhibit it is evident that the Sole-proprietorship form has occupied a larger portion of the industry. An explanation for the preponderance of the single ownership form seems necessary. As it has been seen earlier in Chapter-I that core technology of brick production has remained more or less unaltered over the last few hundred years. Any one endowed with the attributes of entrepreneurship and small working capital can start and run a brick producing unit. Earlier we have also seen that elite population of Uttarparkotrung area was Bramhin by caste and land-renting by occupation. Living by rents from land was easy and socially prestigious during the most part of the 19th century.
Intermittent peasant movements during the later part of the 19th century and earlier decades of 20th century were gradually making living by rack renting precarious. Again, political struggle and consciousness made the concept of rack-renting by land-holders a socially disapproved phenomenon. Both social and economic conditions that were taking shape right beginning from last quarter of the last century, encouraged a few enterprising individuals from land-holding families of Uttarpara-Kotrung-Bhadrali-Makla area to try their luck by entering into Brick industry. By this time demand for bricks by Calcutta Corporation had almost stopped, but the emerging industrial units around Uttarpara, Kotrung, Bhadrakali, Makhla area were in need for this product. As soon as Calcutta Corporation withdrew itself from the brick market and industrial units entered into it the behaviour pattern of brick market changed radically.

In the context of this radical change in the brick market (historically) it has been found that Sole-proprietorship units ruled over the market though there were small number of Partnership and Private Limited forms of business. In respect of business form this state of affairs continued up to the beginning of the 2nd World War when for a short period of time a good number of companies (for example : Martin & Co., Burn & Co., Gillender & Co. and Bull Co.) entered into the brick market and left as soon as the War came to an end. The spurt of Sole-proprietorship again got momentum and still now is the
majority in Brick Industry. Intermittent cycles of single-
proprietorship and company forms is perhaps the result of demand
pattern in the product market. At the initial stage of the
industry in this area the Calcutta Corporation was the largest,
if not sole customer of the product. During the 2nd World War
the Defence Department was again the biggest customer. Not
only these two institutional customers put demand for large
quantum but also, probably offered a price that left a good
profit margin. Brick production in large scale by companies
which have to conform to the various legal and social norms is
possible at a cost far beyond the point at which smaller units
run by private owner produce. In effect this means that brick
production in large scale by company form of business is
possible at a higher cost than that by a solely owned firm.
This statement appears to be ludicrous and contradicts the well
known economic principle but the ground rules of brick industry
uphold the statement. Unless the difference between the cost
and revenue is large enough the company form of business in
this industry tends to be unprofitable. This fact explains the
short lived existence of company form during the two periods as
already mentioned and preponderance of single ownership during
the major part of the existence of this industry in the area.
The spurt of the company form was not noticed during the 1st
World War because the War theatre was far away from the country
and no defence construction worth its name was needed to be
made within the country, not to speak of neighbouring region.
The characteristics of the units functioning in our area of study can also be probed on the basis of size categories of them. Units have been categorised on the basis of amount of invested capitals. The volume of capital invested in a unit makes it different from another in terms of production volume and work force size. This makes an interesting study as shown in the Table - 3.2.

A preliminary study of the table shows that almost 50% of the total units have capital within the range of 2.00 to 2.50 lakhs. Accepting this category as the median one, we find two categories above and two categories below it. The table shows that as the volume of capital increases or decreases correspondingly the production volume and the work force size also increases or decreases. For example, in case of size categories of I & II, along with the rise in total capital, production and work-force size have also increased. On the other hand, with the fall of volume of capital in case of size categories IV & V both the production volume and work-force size have decreased. In comparison with category III with a 19.76% rise in total capital invested in Category II units the production and employment size increased by 6.48% and 6.15% respectively. Similarly, when Category I is compared with Category III, we find that with a 45.16% of rise in total capital, the volume of production and work-force size increase by 17.22% and 9.23% respectively.
### Size Categories of Functioning Brick Units (based on amount of invested capital)

<table>
<thead>
<tr>
<th>Sl. No. Groups</th>
<th>No. of Units</th>
<th>Range of Capital Rs.00,000 (Avg.)</th>
<th>Fixed Capital (Avg.)</th>
<th>Working Capital (Avg.)</th>
<th>Total</th>
<th>% of Fixed Capital</th>
<th>% of Working Capital</th>
<th>Volume of Production (Avg. in Lakh)</th>
<th>No. of Person Employed (Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I</td>
<td>7</td>
<td>3.00 and above</td>
<td>0.56</td>
<td>2.95</td>
<td>3.60</td>
<td>18%</td>
<td>82%</td>
<td>12.66</td>
<td>142</td>
</tr>
<tr>
<td>2. II</td>
<td>11</td>
<td>2.50 to 3.00</td>
<td>0.55</td>
<td>2.42</td>
<td>2.97</td>
<td>19%</td>
<td>81%</td>
<td>11.50</td>
<td>138</td>
</tr>
<tr>
<td>3. III</td>
<td>27</td>
<td>2.00 to 2.50</td>
<td>0.42</td>
<td>2.06</td>
<td>2.48</td>
<td>17%</td>
<td>83%</td>
<td>10.80</td>
<td>130</td>
</tr>
<tr>
<td>4. IV</td>
<td>6</td>
<td>1.50 to 2.00</td>
<td>0.28</td>
<td>1.54</td>
<td>1.82</td>
<td>15%</td>
<td>85%</td>
<td>9.00</td>
<td>110</td>
</tr>
<tr>
<td>5. V</td>
<td>5</td>
<td>1.50 and below</td>
<td>0.19</td>
<td>1.05</td>
<td>1.24</td>
<td>18%</td>
<td>82%</td>
<td>8.50</td>
<td>80</td>
</tr>
</tbody>
</table>
Similarly, in case of Category IV, with a fall in total capital by 2.6%, the production volume and work-force size respectively shrunk by 16.67% and 15.39% when this Category is compared with Category III. Similarly in case of Category V, 21.30% fall in production and 38.46% in employment are accounted for by a 50% reduction in total capital. The interesting point to note in this respect is that rates of rise or fall in production and employment is not in paripassu with the rates of rise and fall in Capital. One firm statement that can be made is that the rates of fall in production and employment are sharper in firms where total investment diminishes than the rate of rise in production and employment in firms where the total investment rises. Does this fact naively convey a massage that large scale production is not suitable in the industry?

For better utilisation of capital and other productive factors it is found that the capital-output ratio relating to the 56 brick fields or five size categories have shown rising tendency of the co-efficient of K/O ratio (Here K = Capital & O = Output during a year)

Again an insight into labour deployment in the units reveals that other factors remaining constant, the number of labour directly varies with the range of working capital.

The last characteristics of the units that we intend to study relates to the organisational design. As is known to the students of organisation, five factors jointly determine the
ultimate design of the organisation. They are ownership, size, technology, social change and human aspects, and environment. Though in modern industry using updated technology, ownership factor has least impact on the organisational design but in a traditional industry like Brick using a traditional technology ownership functions as an important determinant of organisational design. We have already seen that the individual units in Brick Industry is not large in size, neither in terms of capital invested, volume of production not in number of persons employed. In a traditional labour intensive industry, like Brick, number of persons employed functions as a general indicator of size. In our study the largest unit employs on an average 142 hands and smallest one 80 hands. Of them majority is operators, directly involved in the actual production process and a handful of persons are involved in some kind of planning and controlling activities. From this point of view we can safely say that the size pattern is not such that it has overwhelming influence on the organisational design. During the life span of the industry of the area the relevant environment thereof has changed no doubt but not to any significant degree. It is believed that environment has little impact on the organisation design of units of the Brick Industry.

With the establishment of secular democratic state in India, changes have occured in the society and its impact on human aspect is markedly felt. From the discussion that we had with people associated with the Brick Industry, it can be said that the
Indian people have become conscious of their rights, more assertive and altitudinally more democratic but its impact is still to be felt on the organisational design in this industry. The unavoidable conclusion that we are forced to make is that in this Industry the ownership pattern is the most important, if not the sole, determinant of the organisational design. In the following lines we will try to analyse the organisational design, generally found in the Brick Industry of the area.

The structural and process aspects of organisation in this industry is simple. As this industry uses an age-old technology the need for differentiation and integration is not acute enough. In the chapter that follows we have discussed the various tasks required to be performed by this industry. Broadly, the total tasks of industry can be divided into production and selling (in contradistinction to marketing). As the Industry functions in a seller's market, the selling job demands no specialisation. The production job that demands a little degree of specialisation in setting the Bhata (kiln) actual production of bricks and burning is handed over to contractors. The contractors are required to function in accordance with the plan of the owner-manager of the fields.

In this scheme, as such, no need for cohesive and integrated structure is felt. Infact, owner's unit and the contractors unit are loosely bound to function for a season. The relation between owner and contractor continues over a
period of years but every year the relationship is to be recontracted. This fact makes our job of describing the organisation structure precarious.

In terms of organisational hierarchy there are at best two levels-Owner-manager and the contractor-accountant. The contractor who is in sole charge of production maintains a relationship (loose) superior-subordinate with the owner-manager for a short period of the year, i.e., for a production season and at the end of season that part of the organisation ceases to exist. The other part at the second level, lateral to the production levels, is of permanent nature. This part of second level of the organisation is invariably marked by an individual designated as Accountant. He deals with all the odd jobs of accounting, purchasing, selling etc. This structural arrangements make the organisation a flat one. In the area of production the owner-manager delegates authority to the contractor but centralises authority in respect of other jobs to be performed by the organisation through the accountant. Thus the degree of decentralisation of authority is found to be different within the same organisation to the largest extent possible in the production area and minimum extent possible in the selling and other remaining task areas. The owner-manager's direction is final in respect of accountant but his writ does not run into the production stage of organisation. This permanence-impermanance, high-low degree of decentralisation of authority give peculiarity to the organisation functioning in this industry.
In respect of process aspects of organisation design the flat nature of the structure makes communication simple and effective. Most of the communication here is direct and verbal. The people involved have similar belief and value systems and so there is very little difficulty in communicating. The decision making process in the organisation involves only owner-managers and remains as simple as possible. Simplicity/Complexity of the decision making process depends on the nature of state-certainty, risk and uncertainty under which the decisions are taken. Brick Industry as a whole and the units functioning in Uttarpara-Kotrung-Makhla-Bhadrapali area in particular invariably makes decisions under certainty. Thus decisions assume a deterministic characteristic.

It is almost impossible to prepare an organisation chart on the basis of description made above. The organisation structure can be reflected in the visualisation but can not be drawn in form of boxes arranged in hierarchy.